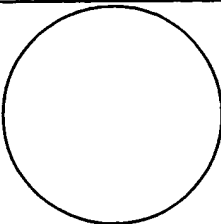


MISSION SELECTION



Subject Of Interest

Evaluate Two-Way Portable Radio Concepts ±

Specific Mission

Create/Evaluate Complete Two-Way Portable Radio Concepts ±

Help

☐ Provide Instructions

Check here if you want detailed instructions as you proceed

Cancel
Open Existing File
Begin

FIG. 1

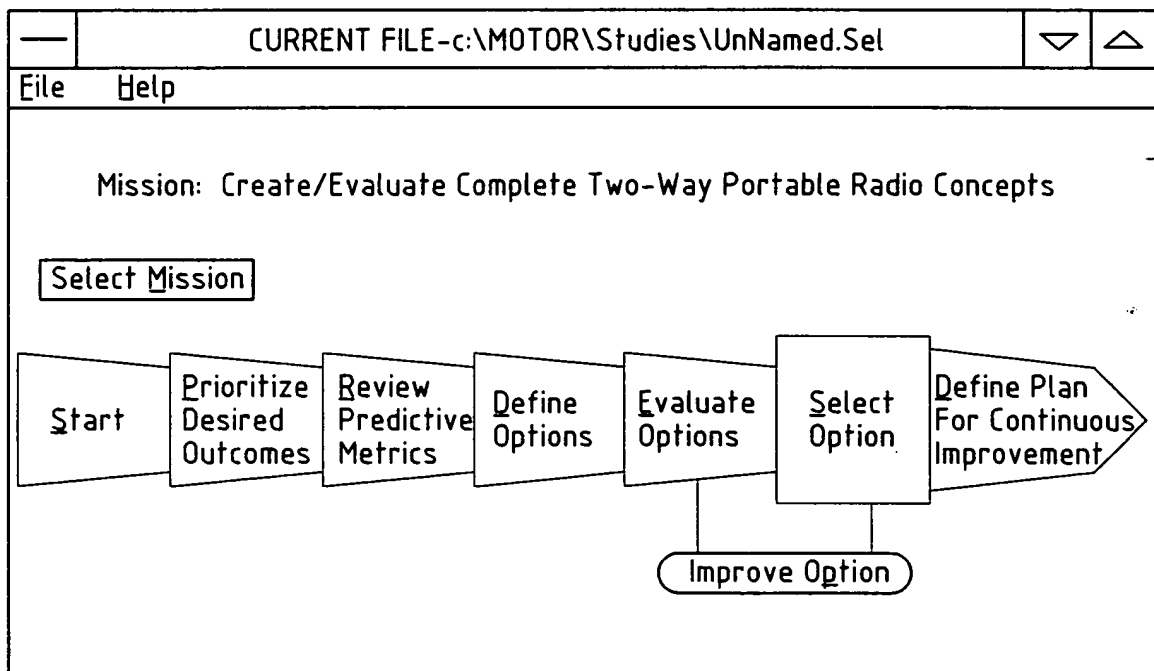


FIG. 2

—

WHATS IMPORTANT? - SORTED REQUIREMENTS

▽

△

The list below consists of all of the requirements. They are listed in order of importance of consideration.

↑

1	Minimize device downtime	1.61
2	Enable communications from difficult transmission areas	1.52
3	Prevent its unauthorized use	1.38
4	Continue to operate in the event of a system power	1.36
5	Maintain a charge for a full day of activity	1.36
6	Allow the transmission of an emergency signal under	1.35
7	Ensure the transmission are secure from unauthorized	1.35
8	Withstand the abuse of everyday use	1.32

↓

Help

Print

Done

FIG. 5

—

PRIORITIZED PREDICTIVE METRICS

▽

△

↑

1	Increase percent of time the device can access the desired receiver (difficult trans)	2.00
2	Reduce number of receptions that can be understood by unintended recipients	1.75
3	Reduce cost of accessories	1.56
4	Reduce number of features that can be customized	1.43
5	Reduce cost of replacement batteries	1.43
6	Reduce time/steps/force to trigger an emergency request	1.40

↓

Help

Print

Description

Done

FIG. 6

METRIC DESCRIPTION

Predictive Metric

Increase percent of time the device can access the desired receiver (difficult)

Metric Description

Print Done

FIG. 7

DEFINING YOUR OPTIONS

1	Current Situation, No Changes
2	Option 1
3	Option 2
4	
5	
6	
7	
8	
9	
10	
11	
12	

This option assumes you will make no changes in your current situation. If you set this option as your baseline option in the next screen, you can compare the alternative options to what you already have.

Help Print Cancel Done

FIG. 8

SETTING THE BASELINE FOR COMPARISON

A basis for comparison is required. Identify the option against which all others will be compared. You should select the option you expect will best satisfy your requirements. Upon completion you will be ready to evaluate your options.

Current Situation, No Changes

⌵

What percent of the Predictive Metrics do you want to use to evaluate your Options?

50

⬮

Help

Cancel

Evaluate

FIG. 9

EVALUATION OF OPTIONS

Option Under Evaluation

Option 1

⌵

Baseline Option

Current Situation, No Changes

Is the option under evaluation better, worse or the same as the baseline option at ensuring you...

1	Increase percent of time the device can access the desired receiver (difficult trans)	Better Than Baseline	<div>⬆</div> <div>⬇</div>
2	Reduce number of receptions that can be understood by unintended recipients	Worse Than Baseline	
3	Reduce cost of accessories		
4	Reduce number of features that can be customized	Better Than Baseline	

Help

Print

Done

FIG. 10

11

—
▼ ▲
RESULTS OF EVALUATION

Evaluation Saved As: Default Evaluation Set ▼

Baseline Option: Current Situation, No Changes

			▲
1	Option 1	5.48	
2	Option 2	0.00	▼

New Baseline
Refine Options

Help
Print
Done

FIG. 11

12

—
▼ ▲
IMPROVE YOUR OPTIONS

Evaluation Name: Default Evaluation Set ▼

Option

Option 1
▼
5.48
Rating

This option does not do well at ensuring you

Reduce number of receptions that can be understood by unintended recipients ▼

Why did this other option score better?

No Option Did Better Than The Baseline Option ▼

How could you improve this option?

New Option Name

Save New Option

Help
Print Analysis
Done

FIG. 12

SET TARGET VALUES

0		03/13/96
1	Increase percent of time the device can access the desired receiver (difficult trans)	
2	Reduce number of receptions that can be understood by unintended recipients	
3	Reduce cost of accessories	
4	Reduce number of features that can be customized	
5	Reduce cost of replacement batteries	

Help Print Done

FIG. 13

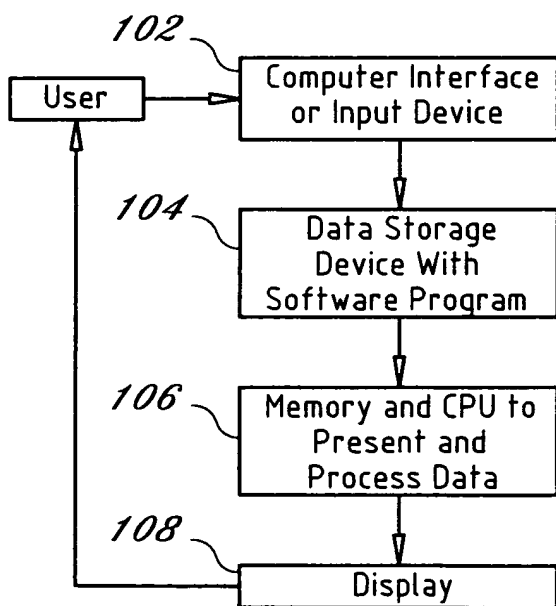


FIG. 14

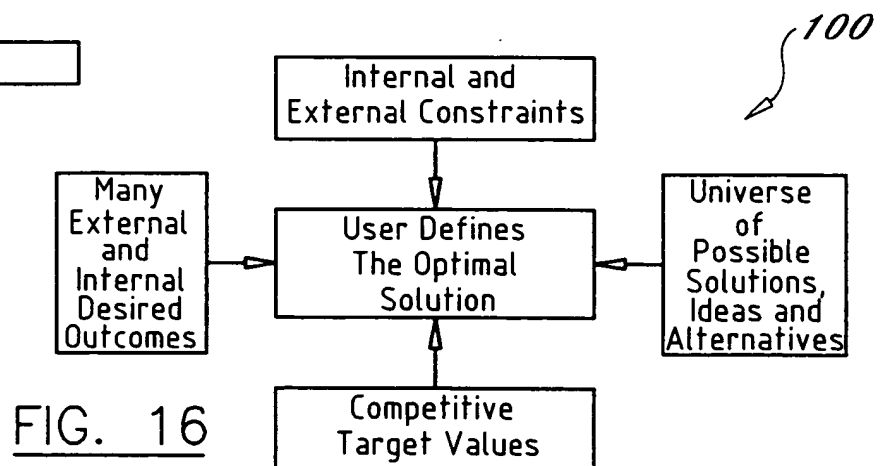


FIG. 16

Detailed System Level Logic For The Creation And Optimization Of Solutions And Strategies

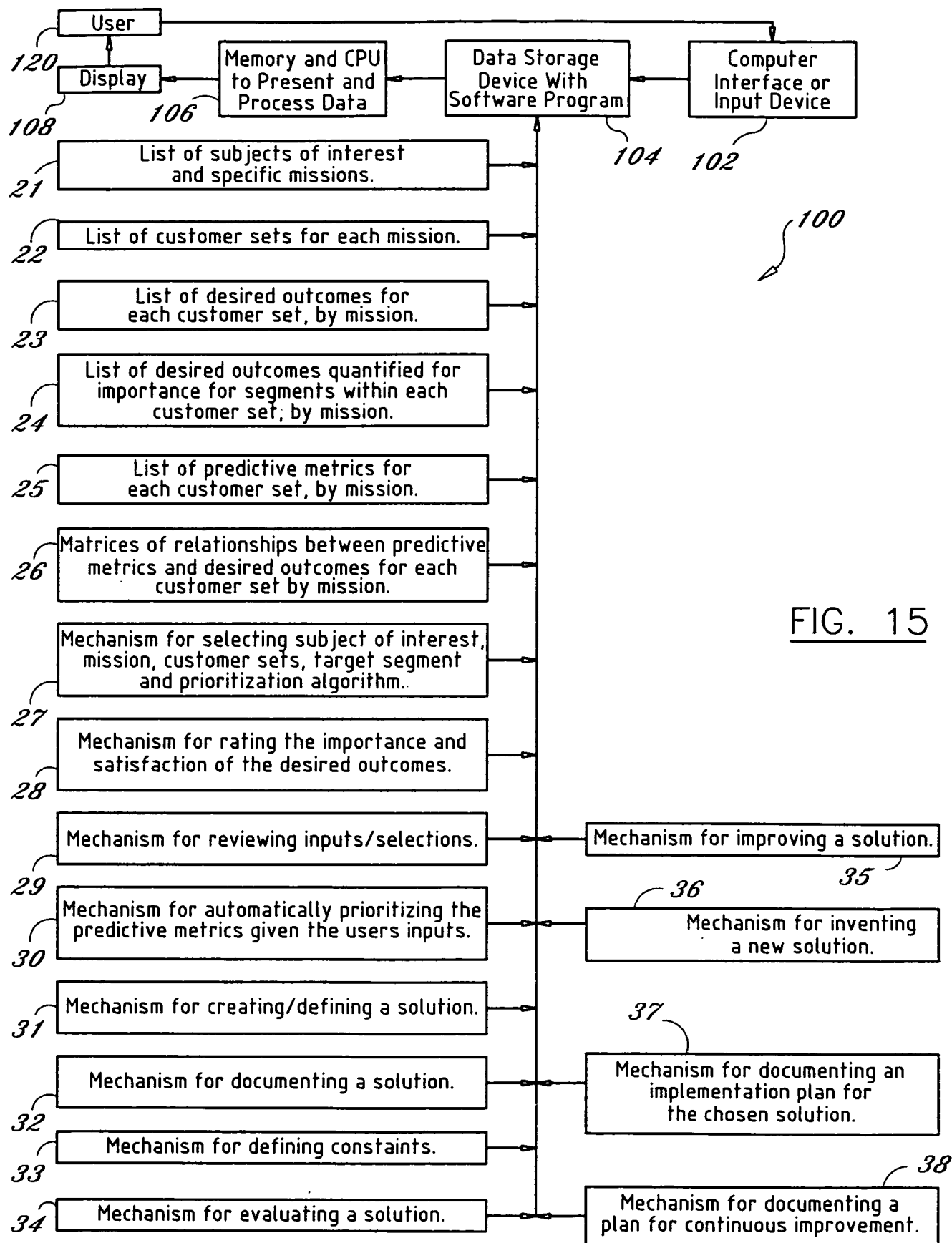


FIG. 15

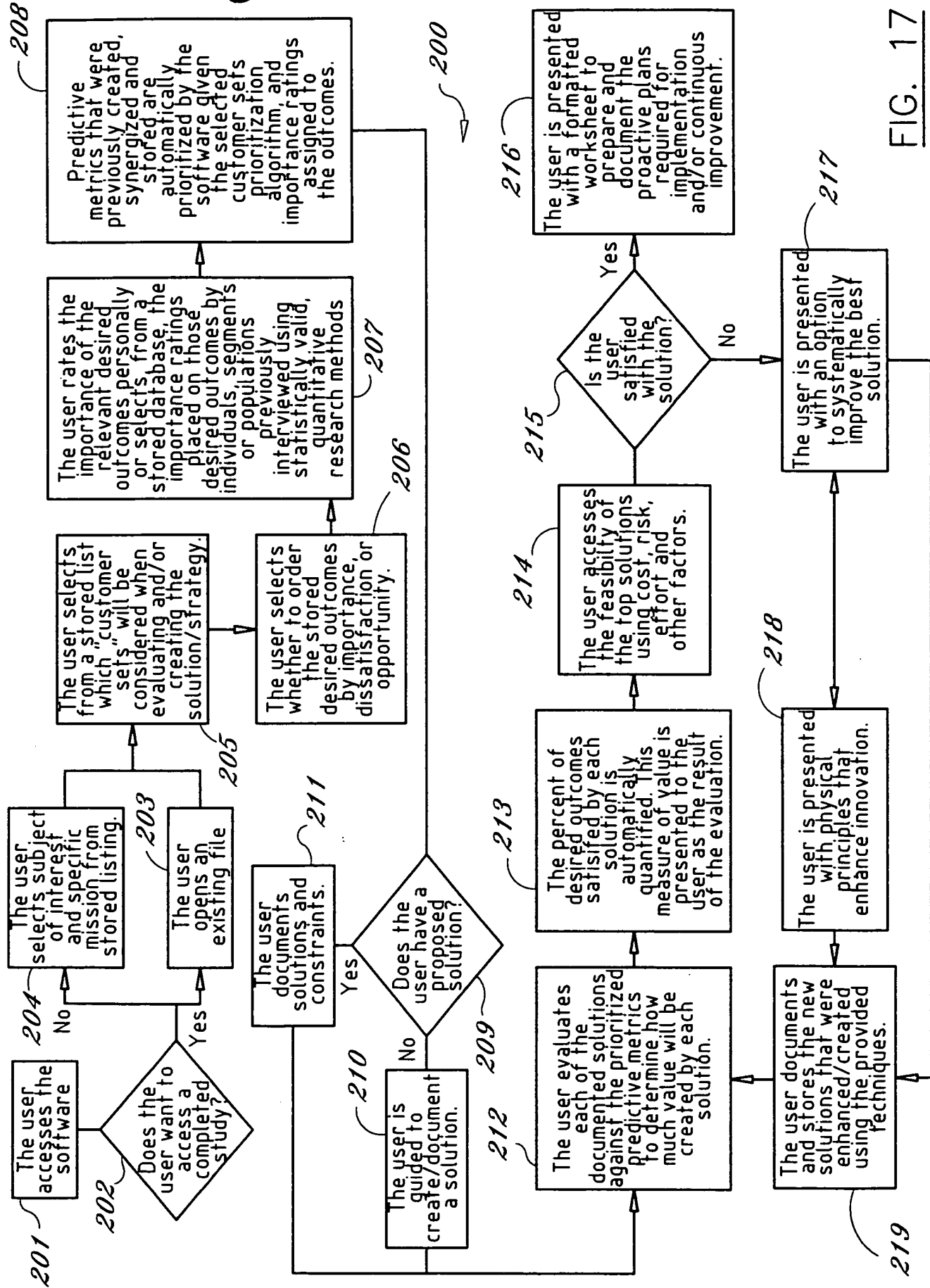


FIG. 17

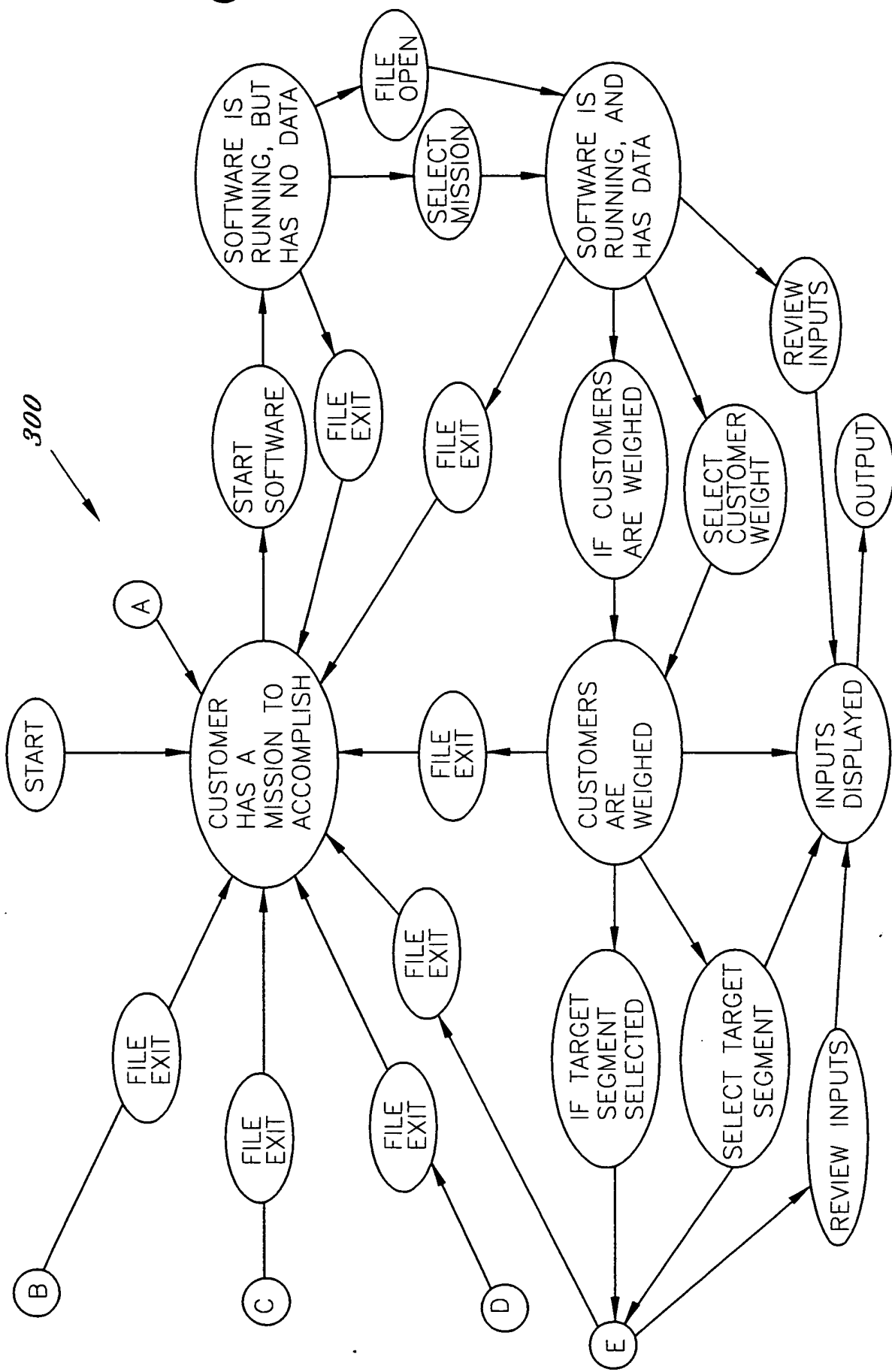


FIG. 18b

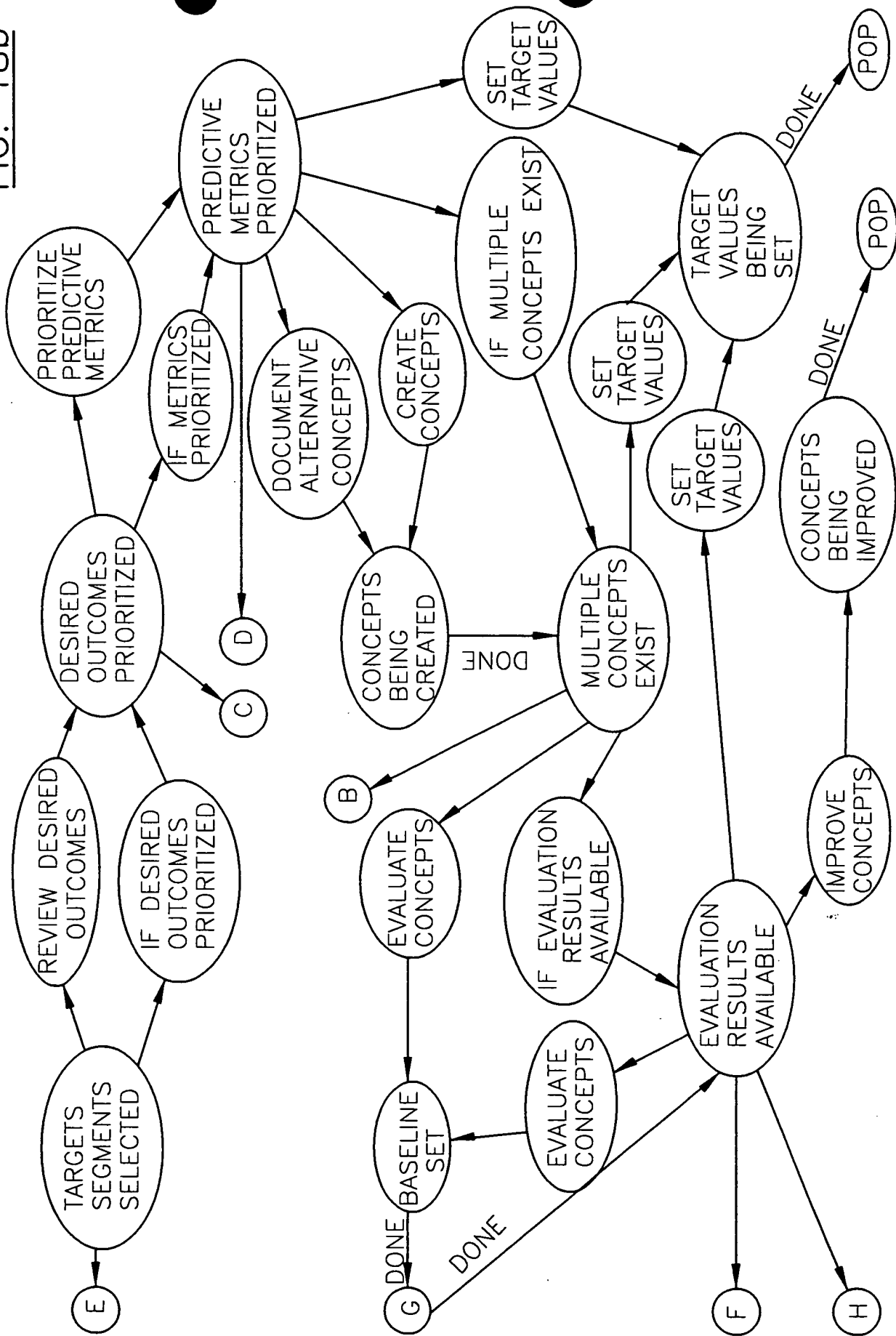


FIG. 18c

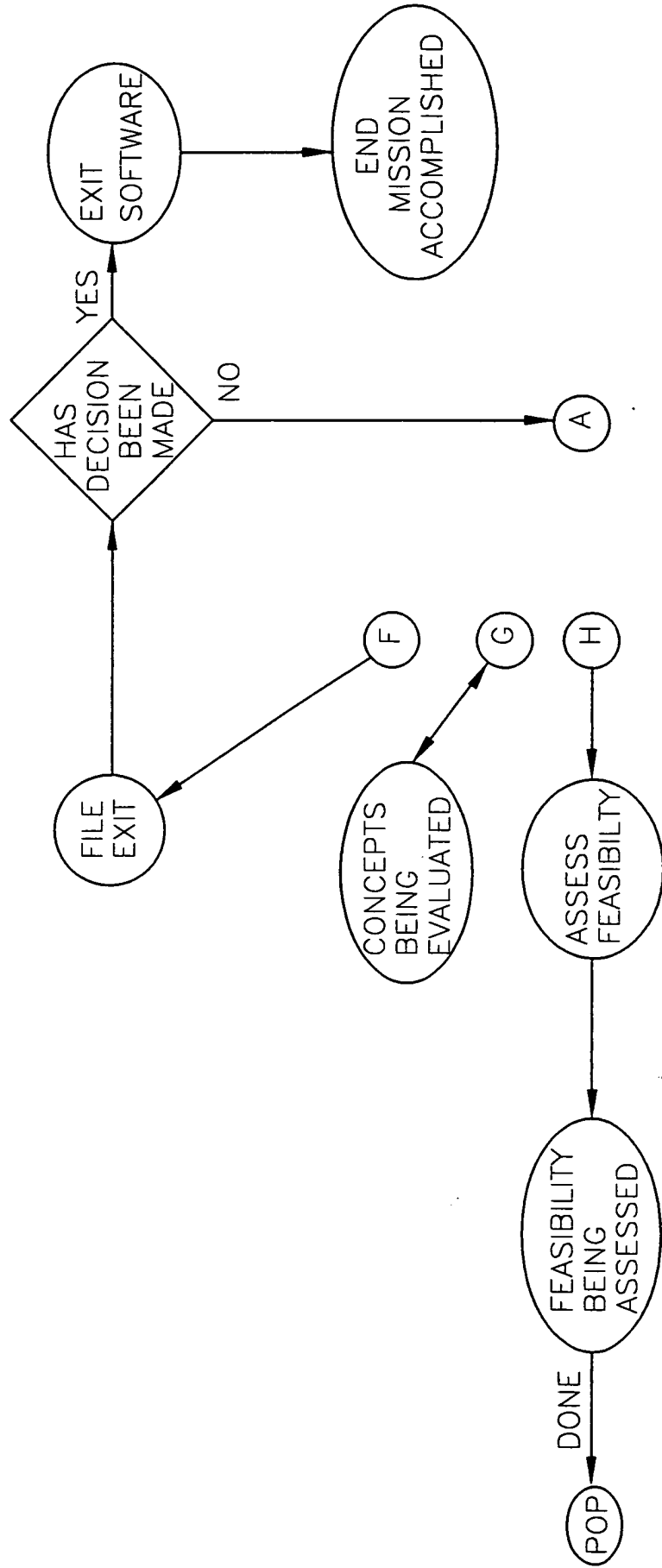


FIG. 18c

Example- The Process Of Business
MANAGEMENTS
DESIRED
OUTCOMES
ON ITS
ORGANIZATION

FIG. 19a

WHATs
VS.
HOWs

Strong ● 9
Moderate ○ 3
Weak △ 1

19b

ORGANIZATION		ONTIS																										
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	1
1	Deliver value to its employees	△		△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	4.5
2	Utilize its collective knowledge to make the best decisions		●			△					△								○	○		△						9.2
3	Perform its actions in order of importance/value			●		△								△	△	△												7.2
4	Deliver value to its investors	○	△	△	●	○	○		△		△	△	△	△	△	△	△	△										8.1
5	Quickly transform its ideas into something of value		○	△		●					△			△	△	△						△	○					6.8
6	Motivate its employees to take action	○	△			●					△	△						○	○	○	○	○	△	△	△	△		5.5
7	Deliver value to its customers		○	△			●		○	○	△	△	△	△	△	△	△	△	△			△						9.7
8	Compete effectively against other organizations	△	△			△		●	○	○	○	○	△	△	△	△							△					8.8
9	Minimize its risk of failure		○	△			○		●			△			○	○	△	△	△			△						8.3
10	Strengthen its skills and abilities							○			●	△												○				6.2
11	Motivate its employees to think creatively	○							△		●	△							○									3.9
12	Protect itself from threats	△	△					△	○		●	●	△					△										3.4
13	Control its own destiny	△	△				△		△	△	△	●	●	△	△	△	△	○	△	△	△	△	△					6.8
14	Eliminate unnecessary actions		○	○	△	△			○		△				●	○	△	△							△	△		5.5
15	Minimize the effort required to achieve the desired results			○		△									△	●		△	△	△	△	△	○		△			5.3
16	Incorporate required change with minimal disruption														△	●	●		△	○	△	△						4.5
17	Operate with a focus on long term success	△	△	△	△		△											●				△	△	△	△	△		4.2
18	Cooperate across functions to achieve organizational goals																	△	●				○		△			6.8
19	Incorporate change with minimal internal resistance	△	△			△	△		△				△			△	△	○		●								5.2
20	Deliver value to its stakeholders	△	△	△	△		△	△	△	△	△	△				△	△			●		△						5.5
21	Implement its plans without internal resistance	△	○			△			△	△			△	△	△	△	△	○	○			●	△					4.8
22	Eliminate dependencies that are self-destructive								△								△					●						3.5
23	Coordinate its actions across all functions		△	△	△	△												○	○			●						6.3
24	Possess the skills to achieve its goals	△	△			△	△																	●				4.2
25	Assume responsibility for its success					○			△				△	△	△			○	△	△		○					●	9.0
26	Minimize the effort required to obtain a customer	△	△	△			○	○	○		△			△	△													6.7
1	Normalized Importance	2.0	7.2	5.9	2.4	3.8	3.0	4.9	4.1	5.5	3.9	3.5	2.8	2.7	3.9	4.3	2.8	3.4	8.2	5.6	2.0	3.6	2.0	4.9	2.6	2.9	2.1	1
2	Normalized Importance																											2
	Maximum value = 10.0																											
	Minimum value = 0.0																											

19b

1	-> Number of opportunities for employees to achieve desired outcomes	
2	-> Number of knowledgeable employees involved in decision making	
3	-> Percent of required actions prioritized for synergistic value	
4	-> Number of opportunities for investors to achieve their desired outcomes	
5	-> Time it takes to turn ideas into something of value	
6	-> Percent of positive actions that are rewarded	
7	-> Number of opportunities for customers to achieve their desired outcomes	
8	-> Number of actions accomplished to establish a strength	
9	-> Number of decisions that consider all the facts	
10	-> Number of actions taken to grow a skill	
11	-> Number of opportunities for creative thinking	
12	-> Number of defenses from threats/danger	
13	-> Number of actions that are externally motivated	
14	-> Number of actions that cannot be traced to the delivery of value	
15	-> Number of actions taken that will not predict success	
16	-> Number of plans that are out of phase with long term plans	
17	-> Percent of long-term outcomes considered in decision making	
18	-> Number of decisions made through organizational consensus	
19	-> Percent of employees that are involved in decisions affecting themselves	
20	-> Number of opportunities for stakeholders to achieve their desired outcomes	
21	-> Percent of employees that are committed to plans affecting themselves	
22	-> Number of self-destructive dependencies	
23	-> Percent of actions coordinated across all functions	
24	-> Percent of skills acquired to achieve the desired results	
25	-> Number of failures linked to inadequate actions	
26	-> Number of known characteristics of the target customer	
1	Importance (Top 2 Box)	
2	Satisfaction With Current Approach (Top 2 Box)	
3	Maximum value = 12.0 Percent Importance	
4	Minimum value = -1.0 Percent Importance	

19a

2	3	4	1
6.2			2.8
2.3			5.8
3.6			4.5
7.2			5.1
5.1			4.3
6.5			3.4
6.3			6.1
4.2			5.5
5.1			5.2
4.7			3.9
4.2			2.4
5.3			2.1
7.3			4.3
4.2			3.4
4.1			3.3
4.5			2.8
3.5			2.6
3.5			4.3
4.2			3.3
6.1			3.4
3.9			3.0
7.4			2.2
5.4			3.9
5.3			2.6
8.8			5.6
3.5			4.2
2	3	4	26

19a

FIG. 19b

Example- The Process Of Business

MANAGEMENTS
DESIGNED
OUTCOMES
ON ITS
PRIORITIZED
BY
OPPORTUNITY

FIG. 20a

WHAT'S
VS.
HOW'S

Strong ● 9
Moderate ○ 3
Weak △ 1

ORGANIZATION

Deliver value to its customers	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	1
Utilize its collective knowledge to make the best decisions	2	○	●	○	○									△	△	△												9.7
Assume responsibility for its success	3	○		△	△									○				●										9.2
Communicate effectively against other organizations	4	△	△		○	△													○	△								9.0
Minimize its risk of failure	5	△	○	△	●									△					○							△		8.8
Deliver value to its investors	6		△	△	△	△													△	△						○		8.3
Perform its actions in order of importance/value	7			●										△					△	△						○		8.1
Quickly transform its ideas into something of value	8		○	△		○							●	△					△	△								7.2
Control its own destiny	9	△	△	△	△	△			△	△									△							△		6.8
Cooperate across functions to achieve organizational goals	10	●				○																						6.8
Minimize the effort required to obtain a customer	11		△	△					○																●			6.7
Coordinate its actions across all functions	12	○		△	△							△																6.3
Strengthen its skills and abilities	13									○																		6.2
Motivate its employees to take action	14	○	△		○		△							○	△											○		5.5
Eliminate unnecessary actions	15			○	△	○									△													5.5
Deliver value to its stakeholders	16			△		△									△				△							●	△	5.5
Minimize the effort required to achieve the desired result	17	△		○	△		○								●													5.3
Incorporate change with minimal internal resistance	18	○	△		●															△	△							5.2
Implement its plans without internal resistance	19	○	○		○	△	△		△					●						△	△					△		4.8
Deliver value to its employees	20	○			△					△																△		4.5
Incorporate required change with minimal disruption	21				○														●									4.5
Operate with a focus on long term success	22							△																		△		4.2
Possess the skills to achieve its goals	23		△									○	△															4.2
Motivate its employees to think creatively	24		○		○	△								●					△									3.9
Eliminate dependencies that are self-destructive	25																		△	△						●		3.5
Protect itself from threats	26																		△	△								3.4
Normalized Importance	1	8.2	7.2	5.9	5.6	5.5	4.9	4.9	4.3	4.1	3.9	3.9	3.8	3.6	3.5	3.4	3.0	2.9	2.8	2.8	2.7	2.6	2.4	2.1	2.0	2.0	2.0	2
Normalized Importance	2																											

20b

20b

20a

1	-> Number of decisions made through organizational consensus
2	-> Number of knowledgeable employees involved in decision making
3	-> Percent of required actions prioritized for synergistic value
4	-> Percent of employees that are involved in decisions affecting themselves
5	-> Number of decisions that consider all the facts
6	-> Percent of actions coordinated across all functions
7	-> Number of opportunities for customers to achieve their desired outcomes
8	<- Number of actions taken that will not predict success
9	-> Number of actions accomplished to establish a strength
10	<- Number of actions that cannot be traced to the delivery of value
11	-> Number of actions taken to grow a skill
12	<- Time it takes to turn ideas into something of value
13	-> Percent of employees that are committed to plans affecting themselves
14	-> Number of opportunities for creative thinking
15	-> Percent of long-term outcomes considered in decision making
16	-> Percent of positive actions that are rewarded
17	-> Number of failures linked to inadequate actions
18	-> Number of defenses from threats/danger
19	<- Number of plans that are out of phase with long term plans
20	<- Number of actions that are externally motivated
21	-> Percent of skills acquired to achieve the desired results
22	-> Number of opportunities for investors to achieve their desired outcomes
23	-> Number of known characteristics of the target customer
24	-> Number of opportunities for stakeholders to achieve their desired outcomes
25	-> Number of opportunities for employees to achieve desired outcomes
26	<- Number of self-destructive dependencies
1	Importance (Top 2 Box)
2	Satisfaction With Current Approach (Top 2 Box)
3	Maximum value = 12.0 Percent Importance Minimum value = -1.0
4	Percent Importance

20a

2	3	4	1
6.3		6.1	1
2.3		5.8	2
8.8		5.6	3
4.2		5.5	4
5.1		5.2	5
7.2		5.1	6
3.6		4.5	7
5.1		4.3	8
7.3		4.3	9
3.5		4.3	10
3.5		4.2	11
5.4		3.9	12
4.7		3.9	13
8.5		3.4	14
4.2		3.4	15
6.1		3.4	16
4.1		3.3	17
4.2		3.3	18
3.9		3.0	19
6.2		2.8	20
4.5		2.8	21
3.5		2.6	22
5.3		2.6	23
4.2		2.4	24
7.4		2.2	25
5.3		2.1	26

FIG. 20b

Evaluation Criteria

CONCEPT SELECTION AND EVALUATION ANALYSIS

Evaluation Criteria	
CONCEPT SELECTION AND EVALUATION ANALYSIS	
</	

FIG. 21

Evaluation Of Business Concepts

CONCEPT SELECTION AND EVALUATION ANALYSIS

22b

-> Percent of decisions made through organizational consensus	1	+	S	+	+	+	+	+	8.2	2	
-> Percent of knowledgeable employees involved in decision making	2	+	S	+	+	+	+	+	7.2		
-> Percent of required actions prioritized for synergistic value	3	S	+	S	+	+	+	+	5.9		
-> Percent of employees that are involved in decisions affecting themselves	4	+	S	+	+	+	+	+	5.6		
-> Percent of decisions that consider all the facts	5	S	S	S	+	+	+	+	5.5		
-> Percent of actions coordinated across all functions	6	S	+	+	+	+	+	+	4.9		
-> Percent of uncovered opportunities for customers to achieve their DO's	7	S	S	S	+	+	+	+	4.9		
-> Percent of actions taken that will not predict success	8	S	+	S	+	+	+	+	4.3		
-> Percent of actions taken to establish a strength	9	+	+	+	S	+	+	+	4.1		
-> Percent of actions that cannot be traced to the delivery of value	10	+	+	+	S	+	+	+	3.9		
-> Percent of actions taken to grow a skill	11	S	+	+	S	+	+	+	3.9		
-> Time it takes to turn ideas into something of value	12	S	+	+	+	+	+	+	3.8		
-> Percent of employees that are committed to plans affecting themselves	13	S	S	+	+	+	+	+	3.6		
-> Number of opportunities for creative thinking	14	S	S	+	+	+	+	+	3.5		
-> Percent of long-term outcomes considered in decision making	15	S	S	S	+	+	+	+	3.4		
-> Percent of positive actions that are rewarded	16	S	S	S	S	S	S	S	3.0		
-> Number of failures linked to inadequate actions	17	S	S	S	+	+	+	+	2.9		
-> Number of defenses from threats/danger	18	S	S	S	+	+	+	+	2.8		
-> Percent of plans that are out of phase with long term plans	19	S	S	S	+	+	+	+	2.8		
-> Percent of actions that are externally motivated	20	S	S	S	S	S	S	S	2.7		
-> Percent of skills acquired to achieve the desired results	21	S	S	S	S	S	S	S	2.6		
-> Number of opportunities for investors to achieve their desired outcomes	22	+	+	+	+	+	+	+	2.4		
-> Percent of known characteristics of the target customer	23	+	S	S	+	+	+	+	2.1		
-> Number of opportunities for stakeholders to achieve their desired outcomes	24	S	-	+	+	+	+	+	2.0		
-> Number of opportunities for employees to achieve desired outcomes	25	S	-	+	+	+	+	+	2.0		
-> Number of self-destructive dependencies	26	S	S	S	+	S	+	+	2.0		
Total Advantages	1	33.6	33.1	43.3	91.6	89.6	91.6	91.6	1	2	
Total Disadvantages	2	4.0							2		
Total Score		33.6	29.1	43.3	91.6	89.6	91.6	91.6	3		

FIG. 22a

Target Values For Prioritized Metrics MANAGEMENT'S REQUIREMENTS ON ITS ORGANIZATION

23b

	1	2	3	4	5	6
-> Percent of decisions made through organizational consensus	1	8.2		5%	95%	98%
-> Percent of knowledgeable employees involved in decision making	2	7.2		15%	60%	95%
-> Percent of required actions prioritized for synergistic value	3	5.9		5%	75%	90%
-> Percent of employees that are involved in decisions affecting themselves	4	5.6		15%	60%	95%
-> Percent of decisions that consider all the facts	5	5.5		5%	95%	98%
-> Percent of actions coordinated across all functions	6	4.9		50%	90%	95%
-> Percent of uncovered opportunities for customers to achieve their DO's	7	4.9		25%	85%	95%
-> Percent of actions taken that will not predict success	8	4.3		50%	10%	5%
-> Percent of actions taken to establish a strength	9	4.1		25%	50%	75%
-> Percent of actions that cannot be traced to the delivery of value	10	3.9		50%	10%	5%
-> Percent of actions taken to grow a skill	11	3.9				
-> Time it takes to turn ideas into something of value	12	3.8				
-> Percent of employees that are committed to plans affecting themselves	13	3.6				
-> Number of opportunities for creative thinking	14	3.5				
-> Percent of long-term outcomes considered in decision making	15	3.4				
-> Percent of positive actions that are rewarded	16	3.0				
-> Number of failures linked to inadequate actions	17	2.9				
-> Number of defenses from threats/danger	18	2.8				
-> Percent of plans that are out of phase with long term plans	19	2.8				
-> Percent of actions that are externally motivated	20	2.7				
-> Percent of skills acquired to achieve the desired results	21	2.6				
-> Number of opportunities for investors to achieve their desired outcomes	22	2.4				
-> Percent of known characteristics of the target customer	23	2.1				
-> Number of opportunities for stakeholders to achieve their desired outcomes	24	2.0				
-> Number of opportunities for employees to achieve desired outcomes	25	2.0				
-> Number of self-destructive dependencies	26	2.0				

The Top 10 Metrics Synergistically satisfy 5% of the Requirements

FIG. 23a

FIG. 22b

22a

	QFD, 4 Phase vs. Typical Approach
2	Process Reengineering vs. Typical Approach
3	Teams vs. Typical Non-Team Approach
4	Invention vs. Typical Approach
5	Invention vs. QFD
6	
7	Ideal Theoretical Approach
1	Normalized Importance
2	Maximum value = 10.0 Normalized Importance
	Minimum value = 1.0

FIG. 23b

23a

1	Normalized Importance
2	Maximum value = 10.0 Normalized Importance Minimum value = 0.0
3	Current Value of Most Organizations
4	Target Value 1996
5	Target Value 1997
6	Target Value 1999